II.   AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Fees in the amount of $4400.00 are included for the additional claims as follows:

Added claims:	64 @ $50.00 =	$3200.00
Added Independent Claims:	6 @ $200.00 =	$1200.00
Total Fee paid:		$4400.00

Listing of Claims:

1.   (Original):   A method of automated sample processing comprising the steps of: establishing a first stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through first robotic sample process functions;

establishing at least a second stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through second robotic sample process functions;

establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system; and

automatically processing at least one sample through operation of said first robotic sample process functions; and

automatically processing at least one sample through operation of said second robotic sample process functions.

2.   (Original):   A method of automated sample processing as described in claim 2 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone

automated sample processing system comprises the step of utilizing an intermediate computer functionality.

3.   (Original):   A method of automated sample processing as described in claim 2 wherein said step of automatically processing at least one sample through operation of said first robotic sample process functions comprises the step of responding to said intermediate computer functionality, and wherein said step of automatically processing at least one sample through operation of said second robotic sample process functions comprises the step of responding to said intermediate computer functionality.

4.   (Original):   A method of automated sample processing as described in claim 3 wherein said step of automatically processing at least one sample through operation of said first robotic sample process functions comprises the step of repetitively responding to said intermediate computer functionality, and wherein said step of automatically processing at least one sample through operation of said second robotic sample process functions comprises the step of repetitively responding to said intermediate computer functionality.

5.   (Original):   A method of automated sample processing as described in claim 2 wherein said step of utilizing an intermediate computer functionality comprises the step of utilizing a separate full function computer programmed for operation with an automated slide processing system.

6.   (Original):   A method of automated sample processing as described in claim 5 wherein said step of utilizing an intermediate computer functionality comprises the step of utilizing a server functionality.

7.   (Previously presented):   A method of automated sample processing as described in claim 1 and further comprising the step of interacting between said

first stand alone automated sample processing system and said second stand alone automated sample processing system.

8. (Original): A method of automated sample processing as described in claim 7 wherein said step of interacting between said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of communicating processing data between said first stand alone automated sample processing system and said second stand alone automated sample processing system.

9. (Original): A method of automated sample processing as described in claim 1 wherein said step of establishing a first stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through first robotic sample process functions comprises the step of establishing a first automated slide processing system, and wherein said step of establishing at least a second stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through second robotic sample process functions comprises the step of establishing a second automated slide processing system.

10. (Original): A method of automated sample processing as described in claim 9 wherein said step of automatically processing at least one sample through operation of said first robotic sample process functions comprises the steps of:
arranging a plurality of slides on a carrier retainment assembly;
applying a reagent to said plurality of slides; and
automatically staining said plurality of slides,

and wherein said step of automatically processing at least one sample through operation of said second robotic sample process functions comprises the steps of:

arranging a plurality of slides on a carrier retainment assembly;

applying a reagent to said plurality of slides; and

automatically staining said plurality of slides.

11.   (Original):   A method of automated sample processing as described in claim 10 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of utilizing an intermediate computer functionality.

12.   (Original):   A method of automated sample processing as described in claim 11 wherein said step of utilizing an intermediate computer functionality comprises the step of utilizing a separate full function computer programmed for operation with an automated slide processing system.

13.   (Original):   A method of automated sample processing as described in claim 12 wherein said step of utilizing an intermediate computer functionality comprises the step of utilizing a server functionality.

14.   (Original):   A method of automated sample processing as described in claim 13 and further comprising the step of establishing a plurality of client functionalities connected to said isolated electrical connection.

15.   (Previously presented):   A method of automated sample processing as described in claim 1 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a scalable connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system.

16.   (Original):   A method of automated sample processing as described in claim 15 wherein said step of establishing a scalable connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing an address-based connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system.

17.   (Previously presented):   A method of automated sample processing as described in claim 1 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the steps of:

prompting address-based electronic communications programming on a separate full function computer electrically connected to said first stand alone automated sample processing system and said second stand alone automated sample processing system to request specific activity on said first stand alone automated sample processing system;

transferring said request for specific activity to said first stand alone automated sample processing system across said isolated electrical connection;

conducting activity on said first stand alone automated sample processing system as a result of said step of prompting electronic communications programming on a separate full function computer;

prompting address-based electronic communications programming on said first stand alone automated sample processing system to respond to said request for specific activity from said separate full function computer; and

transferring said response to said request for specific activity to said first stand alone automated sample processing system across said isolated electrical connection.

18.   (Original):   A method of automated sample processing as described in claim 17 wherein said step of establishing an isolated electrical connection among said first

stand alone automated sample processing system and said second stand alone automated sample processing system further comprises the step of establishing a local area network.

19. (Original):   A method of automated sample processing as described in claim 18 wherein said step of establishing a local area network electronically comprises the step of incorporating a system having a feature selected from a group consisting of:

an Ethernet element, a token ring element, an arcnet element, a fiber distributed data interface element, an industry specification protocol, a bluetooth-based element, a shared common link element, a transmission control protocol/internet protocol communication element, a packetized information protocol, a shared protocol, a proprietary protocol, and a layered protocol exchange system.

20. (Previously presented):   A method of automated sample processing as described in claim 1 and further comprising the step of storing historical information.

21. (Original):   A method of automated sample processing as described in claim 20 wherein said step of storing historical information comprises the steps of:
storing historical information relative to said first stand alone automated sample processing system on said first stand alone automated sample processing system; and

storing historical information relative to said second stand alone automated sample processing system on said second stand alone automated sample processing system.

22. (Original):   A method of automated sample processing as described in claim 21 and further comprising the step of transferring at least part of said historical information to a separate electronic location.

23.   (Original):   A method of automated sample processing as described in claim 22 wherein said step of transferring at least part of said historical information to a separate electronic location comprises the step of automatically transferring at least part of said historical information to a separate electronic location when said separate electronic location is available.

24.   (Previously presented):   A method of automated sample processing as described in claim 1 wherein said step of establishing a first stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through first robotic sample process functions comprises the step of establishing an array of multiple memory elements for said first stand alone automated sample processing system, and wherein said step of establishing at least a second stand alone automated sample processing system having an automated process operation capability that causes automated process operation events through second robotic sample process functions comprises the step of establishing an array of multiple memory elements for said second stand alone automated sample processing system.

25.   (Original):   A method of automated sample processing as described in claim 24 wherein said step of establishing an array of multiple memory elements for said first stand alone automated sample processing system comprises the step of establishing a mirrored array of multiple memory elements for said first stand alone automated sample processing system, and wherein said step of establishing an array of multiple memory elements for said second stand alone automated sample processing system comprises the step of establishing a mirrored array of multiple memory elements for said second stand alone automated sample processing system.

26.   (Previously presented):   A method of automated sample processing as described in claim 1 wherein said step of automatically processing at least one

sample through operation of said first robotic sample process functions comprises the steps of:

interrupting processing through operation of said first robotic sample process functions; and

resuming processing through operation of said first robotic sample process functions,

and wherein said step of automatically processing at least one sample through operation of said second robotic sample process functions comprises the steps of:

interrupting processing through operation of said second robotic sample process functions; and

resuming processing through operation of said second robotic sample process functions.

27.   (Original):   A method of automated sample processing as described in claim 26 and further comprising the steps of:

changing at least one aspect of sample processing; and

rescheduling robotic sample process functions in response to said step of changing at least one aspect of sample processing.

28.   (Original):   A method of automated sample processing as described in claim 26 and further comprising the step of applying additional buffer to at least one sample in response to said step of changing at least one aspect of sample processing.

29.   (Previously presented):   A method of automated sample processing as described in claim 1 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a physically separate system connection.

30.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing an Internet connection.

31.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing an Ethernet connection.

32.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a telephone connection.

33.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a connection to a separate room.

34.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a wireless connection.

35.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a bluetooth-based connection.

36.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing an e-mail based connection.

37.   (Original):   A method of automated sample processing as described in claim 29 wherein said step of establishing an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system comprises the step of establishing a hardwired connection.

38.   (Previously presented):   A method of automated sample processing as described in claim 1 and further comprising the step of connecting said isolated electrical connection to an external network.

39.   (Original):   A method of automated sample processing as described in claim 38 and further comprising the step of establishing an isolation functionality between said isolated electrical connection and said external network.

40.   (Original):   A method of automated sample processing as described in claim 38 wherein said step of connecting said isolated electrical connection to an external network comprises the step of connecting said isolated electrical connection to an office network.

41.   (Previously presented):   A method of automated sample processing as described in claim 38 wherein said step of connecting said isolated electrical connection to an external network comprises the step of connecting said isolated electrical connection to a laboratory information system.

42 – 223.   (Cancelled)

224.   (Previously presented):   A laboratory instrument information management and control apparatus, comprising:

a Laboratory Information System (LIS) configured to manage patient and laboratory information;

at least one laboratory instrument configured to run anatomical pathology tests relating to at least one patient;

at least one host computer in communication with said at least one laboratory instrument;

an interface point server (IPS) in communication with said host computer and said LIS, said interface point server configured to function as a communication interface between said host computer and said hospital laboratory information system in a manner responsive to a predetermined communication protocol, and said IPS comprising a first level interface for data communication and control between said LIS and said IPS, and said IPS comprising a second level interface for data communication and control between said at least one laboratory instrument and said IPS.

225.   (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said at least one laboratory instrument comprises at least two automated slide staining systems, and said second level interface of said IPS controls data communication and control between said at least two automated slide staining systems and said IPS, and said second level interface of said IPS controls data communication and control among said at least two automated slide staining systems.

226. (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said at least one laboratory instrument configured to run tests relating to at least one patient includes said at least one host computer in communication with said at least one laboratory instrument as an integral part of said at least one laboratory instrument.

227. (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said predetermined communication protocol governs data exchange, data management and integration of data in accordance with one of Health Level Seven (HL7) protocol, or IEEE 1073 standard for Medical Device Communications.

228. (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said at least one host computer is in communication with said at least one laboratory instrument via at least one of a wireless connection, a serial connection, a parallel connection and an Ethernet connection.

229. (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said hospital laboratory information system is in communication with the interface point server via at least one of an Ethernet connection and an Internet connection.

230. (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said at least one laboratory instrument comprises at least two automated slide staining systems, and said second level interface controls data sharing among said at least two automated slide staining systems.

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231.   (Previously presented):   The laboratory instrument information management and control apparatus of claim 230 wherein said data sharing among said at least two automated slide staining systems includes data comprising staining protocols; user passwords and privileges; reagent dispensers; reagent vials; cases; keycodes; templates; panels; and 3rd party reagents.

232.   (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said laboratory information system manages the workflow for anatomical pathology in a laboratory, including at least one of pathology order placement; slide processing optimization on multiple instruments; slide identification through the process; bar code use; reagent use and supply; reagent sharing between laboratory instruments; and operator in-service qualification.

233.   (Previously presented):   The laboratory instrument information management and control apparatus of claim 224 wherein said laboratory information system is a hospital laboratory information system.

234.   (Previously presented)   A method for communication between a laboratory information system and at least one host computer comprising the steps of:
configuring an interface point network including an interface point server (IPS) in communication with a laboratory information system and at least one host computer managing data and control for at least one anatomical pathology laboratory instrument, said at least one host computer including host data and being in communication with said at least one laboratory instrument;
operating said interface point server to broadcast a message across said interface point network, wherein said message includes information responsive to data present on said IPS;
determining if differences exist between said host data and said data present on said IPS; and

updating at least one of said IPS and said at least one host computer in a manner responsive to at least one of said host data and said data present on said IPS.

235. (Previously presented):   The method of claim 234 wherein said at least one host computer comprises more than one host computer and the method further includes the step of sharing of data among said more than one host computer.

236. (Previously presented): ·   The method of claim 235 wherein said sharing of data among said more than one host computer includes data comprising staining protocols; user passwords and privileges; reagent dispensers; reagent vials; cases; keycodes; templates; panels; and 3rd party reagents.

237. (Previously presented):   The method of claim 234 wherein said laboratory information system manages the workflow for anatomical pathology in a laboratory, including at least one of pathology order placement; slide processing optimization on multiple instruments; slide identification through the process; bar code use; reagent use and supply; reagent sharing between laboratory instruments; and operator in-service qualification.

238. (Previously presented):   The method of claim 234 wherein said at least one host computer managing data and control for at least one anatomical pathology laboratory instrument is an integral part of said at least one laboratory instrument

239. (Previously presented):   The method of claim 234 wherein said interface point server (IPS) in communication with said laboratory information system communicates via a predetermined communication protocol that governs data exchange, data management and integration of data in accordance with one of Health Level Seven (HL7) protocol, or IEEE 1073 standard for Medical Device Communications.

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240. (Previously presented):   A method for laboratory instrument information management and control, comprising the steps of:

configuring a Laboratory Information System (LIS) to manage patient and laboratory information in accordance with Health Level Seven protocol;

configuring at least two automated slide staining laboratory instruments to run anatomical pathology tests relating to at least one patient;

configuring at least one host computer in communication with said at least two slide staining laboratory instruments;

configuring a server in communication with said at least one host computer and said LIS, said server comprising a first level interface for data communication and control between said LIS and said server, and said server comprising a second level interface for data communication and control between said at least two automated slide staining laboratory instruments and said server, wherein said server is further configured for data sharing among said at least one host computer and said at least two automated slide staining laboratory instruments.

241. (Previously presented):   The method for laboratory instrument information management and control of claim 240 wherein said data sharing among said at least two automated slide staining laboratory instruments includes data comprising staining protocols; user passwords and privileges; reagent dispensers; reagent vials; cases; keycodes; templates; panels; and 3rd party reagents.

242. (Previously presented):   The method for laboratory instrument information management and control of claim 240 wherein said laboratory information system manages the workflow for anatomical pathology in a laboratory, including at least one of pathology order placement; slide processing optimization on multiple instruments; slide identification through the process; bar code use; reagent use and supply; reagent sharing between laboratory instruments; and operator in-service qualification.

243.   (Previously presented):   The method of claim 240 wherein said server in communication with said laboratory information system communicates via a predetermined communication protocol that governs data exchange, data management and integration of data in accordance with one of Health Level Seven (HL7) protocol, or IEEE 1073 standard for Medical Device Communications.

244.   (Previously presented):   An automated sample processing system comprising:

a.   a first sample;

b.   a first stand alone automated slide processing system having a first robotic motion system to which said first sample is responsive;

c.   a second sample;

d.   a second stand alone automated slide processing system having a second robotic motion system to which said second sample is responsive;

e.   an isolated electrical connection among said first stand alone automated sample processing system and said second stand alone automated sample processing system;

f.   a first automated process functionality to which said first robotic motion system is responsive; and

g.   a second automated process functionality to which said second robotic motion system is responsive.

245.   (Previously presented):   An automated sample processing system as described in claim 244 wherein said isolated electrical connection comprises a system having a feature selected from a group consisting of:

an Ethernet element, a token ring element, an arcnet element, a fiber distributed data interface element, an industry specification protocol, a bluetooth-based element, a shared common link element, a transmission control protocol/internet protocol communication element, a packetized information protocol, a shared protocol, a proprietary protocol, a layered protocol exchange system, an

intermediate computer functionality, a separate full function computer programmed for operation with an automated slide processing system, a server functionality, a processing system interaction functionality, a processing data communication functionality between said first stand alone automated sample processing system and said second stand alone automated sample processing system, a scalable connection, an address-based connection, an address-based electronic communications prompt functionality on a separate full function computer electrically connected to said first stand alone automated sample processing system and said second stand alone automated sample processing system, a request transfer functionality to which said first stand alone automated sample processing system is responsive, an address-based electronic communications prompt functionality on said first stand alone automated sample processing system, a response transfer functionality to which a separate full function computer is responsive, a local area network, and a local area network electronically connected to an automated sample processing system.

246. (Previously presented):   A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

transiently activating a remote information link with said automated sample processing system;

transferring sample process information through said remote information link; and

automatically processing at least one sample through operation of said robotic sample process functions.

247. (Previously presented):   A method of automated sample processing as described in claim 246 wherein said step of transiently activating a remote information link comprises the step of incorporating a system having a feature selected from a group consisting of:

an Ethernet element, a token ring element, an arcnet element, a fiber distributed data interface element, an industry specification protocol, a bluetooth-based element, a shared common link element, a transmission control protocol/internet protocol communication element, a packetized information protocol, a shared protocol, a proprietary protocol, a layered protocol exchange system, an intermediate computer functionality, a separate full function computer programmed for operation with an automated slide processing system, a server functionality, a processing system interaction functionality, a processing data communication functionality between a first stand alone automated sample processing system and a second stand alone automated sample processing system, a scalable connection, an address-based connection, an address-based electronic communications prompt functionality on a separate full function computer electrically connected to a first stand alone automated sample processing system and a second stand alone automated sample processing system, a request transfer functionality to which a first stand alone automated sample processing system is responsive, an address-based electronic communications prompt functionality on a first stand alone automated sample processing system, a response transfer functionality to which a separate full function computer is responsive, a local area network, and a local area network electronically connected to an automated sample processing system..

248.   (Previously presented):   An   automated   sample   processing   system
        comprising:

        at least one sample;

        an automated slide processing system having a robotic motion system to which said first sample is responsive;

        a transiently active remote information link with said automated sample processing system; and

        an automated process functionality to which said robotic motion system is responsive.

249.   (Previously presented):   An automated sample processing system as
        described in claim 248 wherein said transiently active remote information link
        comprises a system having a feature selected from a group consisting of:
        an Ethernet element, a token ring element, an arcnet element, a fiber distributed
        data interface element, an industry specification protocol, a bluetooth-based
        element, a shared common link element, a transmission control protocol/internet
        protocol communication element, a packetized information protocol, a shared
        protocol, a proprietary protocol, a layered protocol exchange system, an
        intermediate computer functionality, a separate full function computer
        programmed for operation with an automated slide processing system, a server
        functionality, a processing system interaction functionality, a processing data
        communication functionality between a first stand alone automated sample
        processing system and a second stand alone automated sample processing system,
        a scalable connection, an address-based connection, an address-based electronic
        communications prompt functionality on a separate full function computer
        electrically connected to a first stand alone automated sample processing system
        and a second stand alone automated sample processing system, a request transfer
        functionality to which a first stand alone automated sample processing system is
        responsive, an address-based electronic communications prompt functionality on
        a first stand alone automated sample processing system, a response transfer
        functionality to which a separate full function computer is responsive, a local area
        network, and a local area network electronically connected to an automated
        sample processing system.

250.   (Previously presented):   A method of automated sample processing
        comprising the steps of:
        establishing an automated sample processing system having an automated process
        operation capability that causes automated process operation events through
        robotic sample process functions;
        activating a continuous physically remote information link with said automated
        sample processing system;

continuously transferring sample process information through said continuous physically remote information link; and

automatically processing at least one sample through operation of said robotic sample process functions in response to said continuously transfer of sample process information.

251.   (Previously presented):   A method of automated sample processing as described in claim 250 wherein said step of activating a continuous physically remote information link comprises the step of incorporating a system having a feature selected from a group consisting of:

an Ethernet element, a token ring element, an arcnet element, a fiber distributed data interface element, an industry specification protocol, a bluetooth-based element, a shared common link element, a transmission control protocol/internet protocol communication element, a packetized information protocol, a shared protocol, a proprietary protocol, a layered protocol exchange system, an intermediate computer functionality, a separate full function computer programmed for operation with an automated slide processing system, a server functionality, a processing system interaction functionality, a processing data communication functionality between a first stand alone automated sample processing system and a second stand alone automated sample processing system, a scalable connection, an address-based connection, an address-based electronic communications prompt functionality on a separate full function computer electrically connected to a first stand alone automated sample processing system and a second stand alone automated sample processing system, a request transfer functionality to which a first stand alone automated sample processing system is responsive, an address-based electronic communications prompt functionality on a first stand alone automated sample processing system, a response transfer functionality to which a separate full function computer is responsive, a local area network, and a local area network electronically connected to an automated sample processing system..

252.   (Previously presented):   An   automated   sample   processing   system   comprising:

at least one sample;

an automated sample processing system having a robotic motion system to which said sample is responsive;

a continuous physically remote information link to which said automated sample processing system is responsive; and

an automated process functionality to which said robotic motion system is responsive.

253.   (Previously presented):   An   automated   sample   processing   system   as   described in claim 252 wherein said continuous physically remote information link comprises a system having a feature selected from a group consisting of:

an Ethernet element, a token ring element, an arcnet element, a fiber distributed data interface element, an industry specification protocol, a bluetooth-based element, a shared common link element, a transmission control protocol/internet protocol communication element, a packetized information protocol, a shared protocol, a proprietary protocol, a layered protocol exchange system, an intermediate computer functionality, a separate full function computer programmed for operation with an automated slide processing system, a server functionality, a processing system interaction functionality, a processing data communication functionality between a first stand alone automated sample processing system and a second stand alone automated sample processing system, a scalable connection, an address-based connection, an address-based electronic communications prompt functionality on a separate full function computer electrically connected to a first stand alone automated sample processing system and a second stand alone automated sample processing system, a request transfer functionality to which a first stand alone automated sample processing system is responsive, an address-based electronic communications prompt functionality on a first stand alone automated sample processing system, a response transfer functionality to which a separate full function computer is responsive, a local area

network, and a local area network electronically connected to an automated sample processing system.

254. (New): A method for configuring a host controlling at least one instrument in a laboratory comprising: configuring said host to have at least one local data element; and configuring said host to have at least one global data element, said at least one global data element having a common data definition and data value used by said host and at least one other host connected to said host, said at least one local data element having a data definition and data value used only by said host, at least one of said data elements being used by said host in connection with processing performed by said at least one instrument.

255. (New): The method of claim 254, wherein said host and said at least one other host communicate with an interface server to maintain an up-to-date local copy of said at least one global data element.

256. (New): The method of claim 255, further comprising: configuring one local data element of said host as a new global data element; communicating said new global data element to said interface server; and configuring said at least one other host in accordance with said new global data element using said interface server.

257. (New): The method of claim 254, wherein said host, said at least one other host and said interface server are included in a laboratory network.

258. (New): The method of claim 257, wherein said interface server is connected to a laboratory information system.

259. (New): The method of claim 254, wherein said laboratory instrument is an anatomical pathology laboratory instrument.

260. (New): The method of claim 257, wherein said host performs offline processing with respect to said at least one other host and said interface server, and said host uses said at least one local data element in said offline processing with said at least one instrument.

261. (New): The method of claim 260, wherein said host synchronizes said at least one global data element with said interface server when said host completes said offline processing, said host and said at least one other host being configured to use different global data elements.

262. (New): The method of claim 254, wherein said data elements include at least one of: a user password, a user privilege, reagent information, patient information, sample information, batch information, laboratory test information and a protocol.

263. (New): The method of claim 258, wherein information is communicated between said laboratory information system and said interface server, said information comprising a first portion and a second portion, said first portion including at least one of test order information and case information sent from said laboratory information system to said interface server, said second portion including status information about a test order.

264. (New): The method of claim 263, wherein said first portion includes case information that is manually entered at said laboratory information system and is communicated from said laboratory information system without further manual data entry.

265. (New): The method of claim 263, wherein said first portion includes test order information and the method further comprising: communicating test result information from said host to said interface server for a test performed by a first instrument of said at least one laboratory instruments; and sending said second portion from said interface server to said laboratory information system, said

second portion including status information corresponding to said test result information.

266. (New): The method of claim 265, wherein said interface server manages a database including information about test orders that have not been completed, and, when a test order is complete, information about said test order is removed from said database.

267. (New): The method of claim 266, wherein said host includes a local database of information about tests performed by said first instrument, and the method further comprising: receiving a request for test information about a completed test performed by said first instrument; requesting said test information from said local database of said host about said completed test; and sending a response to said request, said response including data in accordance with said test information.

268. (New): The method of claim 254, wherein an update to said at least one global data element is automatically replicated to said host and said at least one other host in accordance with ongoing processing performed by each host to obtain data updates from a server managing a database of global data elements.

269. (New): The method of claim 254, wherein said at least one global data element is a configuration data element having a corresponding configuration option.

270. (New): The method of claim 269, wherein said configuration option is for a configurable symbology identifier corresponding to a symbology used with optical encodings in the laboratory.

271. (New): The method of claim 270, wherein one of said instruments controlled by said host operates in accordance with said symbology.

272. (New): The method of claim 271, wherein an optical scanner is one of said instruments controlled by said host, said scanner supporting scanning operations in accordance with said symbology.

273. (New): The method of claim 271, wherein a label printer is one of said instruments controlled by said host, said label printer supporting printing operations in accordance with said symbology.

274. (New): The method of claim 254, wherein said host is configured to identify an element in a laboratory, and the method further comprising: receiving, by a label associated with said element, an interrogator signal; and transmitting, by said label in response to said interrogator signal, an electromagnetic response signal including at least a first portion of information used for uniquely identifying said element in said laboratory.

275. (New): The method of claim 274, wherein said electromagnetic response signal is produced using information encoded in said label associated with said element.

276. (New): The method of claim 274, further comprising: determining a location of said element in said laboratory in accordance with said electromagnetic response signal.

277. (New): The method of claim 274, wherein said label is affixed to a surface of said element.

278. (New): The method of claim 274, wherein said label includes other information imprinted on a surface of said label.

279. (New): The method of claim 278, wherein said other information includes optically recognizable data which is readable by a machine.

280.   (New): The method of claim 278, wherein said other information includes human readable data.

281.   (New): The method of claim 274, further comprising: encoding said label with other information as said element is processed in accordance with at least one laboratory workflow processing step.

282.   (New): The method of claim 274, further comprising: using said first portion to obtain additional information about said element from a database.

283.   (New): The method of claim 254, wherein said hosts, an interface server, and a laboratory information system are included in a laboratory network, said laboratory information system in communication with said interface server, and said interface server in communication with said host, and wherein one of said instruments controlled by said host is a printer, and the host is configured to automatically print slide labels in response to said interface server receiving an order from a laboratory information system.

284.   (New): A method for automatically determining a processing order of a plurality of samples in a laboratory comprising: receiving scheduling inputs, said scheduling inputs including current supply information; and determining a processing order for said plurality of samples in accordance with scheduling inputs on at least one laboratory instrument.

285.   (New): The method of claim 284, wherein said scheduling inputs includes laboratory configuration information associated with said at least one laboratory instrument, said laboratory configuration information comprising at least one of: instrument processing capacity, instrument status information, and instrument processing rates.

286. (New): The method of claim 284, wherein said scheduling inputs include quality control information comprising at least one of a number of positive quality control samples, and a number of negative quality control samples.

287. (New): The method of claim 286, wherein said quality control information is determined in accordance with at least one certification criteria for a new reagent.

288. (New): The method of claim 284, wherein said processing order schedules processing for a plurality of laboratory instruments.

289. (New): The method of claim 284, wherein said processing order schedules processing for a plurality of sequentially dependent runs.

290. (New): The method of claim 284, wherein said scheduling inputs includes at least one of: preferred slide groupings, processing prioritization information, processing dependencies, case information for pending testing orders, and performance selection criteria.

291. (New): The method of claim 290, wherein said performance selection criteria includes maximizing throughput.

292. (New): The method of claim 284, wherein said scheduling inputs include at least one of a sample run configuration and configuration override information, and the method further comprising: determining an output state in accordance with at least one of said sample run configuration and said configuration override information.

293. (New): The method of claim 292, wherein said configuration override information includes a variation of a current configuration.

294. (New): A system for laboratory information management and control comprising:

a laboratory information system managing patient and laboratory information;

a first host configured with a local data element and configured to share a global data element, said local data element having a data definition and data value used only by said first host, said host using at least one of said data elements in connection with performing processing on at least one laboratory instrument connected to said first host;

a second host configured to share said global data element; at least one laboratory instrument controlled by said host; and

a server in communication with said laboratory information system and said at least one host, said server managing a database including said global data element, said server communicating with said first host and said second host to maintain a current copy of said global data element in said database, and in local copies of said global data element at each of said hosts.

295.   (New):   A method for communicating data in a laboratory information management and control network comprising:

receiving data at a server from a single input point, said data including a first portion comprising at least one of case information, patient information and test order information, said data being entered at said single input point;

storing said data in a first database managed by said server;

automatically replicating said data from said first database to one or more hosts in communication with said server, a first host of said hosts controlling at least one laboratory instrument, said data being replicated without further data entry and using messages exchanged between said server and said first host; and

storing said data in a second database which is local to said first host.

296.   (New): The method of Claim 295, wherein said single input point is a laboratory information management system managing patient and laboratory information.

297.   (New): The method of Claim 295, wherein said at least one laboratory instrument includes at least one of: an imager, a stainer, a bar code reader, a label printer, an

optical scanner, an instrument that writes information to a label, and an instrument that reads information from a label.

298.   (New): The method of Claim 295, further comprising:

receiving diagnostic information from a pathologist, wherein at least a portion of said information is received using at least one of: a computer entry station, a touch pad entry device, a voice data entry device, and an interactive video with voice data entry device.

299.   (New): The method of Claim 295, further comprising:

recording pathologist diagnostic information on a label associated with a sample using a data recording device in communication with one of said hosts.

300.   (New): The method of Claim 295, further comprising:

exchanging communications between said server and said host to automatically maintain a synchronized copy of said data in said first database and said second database in accordance with any updates made to said data by said server, said host, or another component in communication therewith.

301.   (New): The method of Claim 297, wherein one of said instruments is an imager, said imager including a local memory or a data storage device upon which some of said data is stored.

302.   (New): The method of Claim 301, further comprising:

producing image information using said imager;

storing said image information in said one of said local memory or said data storage device;

uploading said image information to said second database of said host; and

automatically replicating said image information to said first database and another host by exchanging messages therebetween to maintain data synchronization of shared data elements, said image information being a shared data element.

303.   (New): The method of Claim 301, further comprising:

reporting, by said imager, identifying information about a sample being processed at a point in time;

communicating said identifying information to said first host; and

automatically replicating said identifying information to said first data and another host by exchanging messages therebetween.

304.   (New): The method of Claim 395, wherein said first host controls a first set of one or more laboratory instruments operating in accordance with a first set of operations, and a second host is in communication with said first host and said server and controls a second set of one or more laboratory instruments operating in accordance with a second set of operations different than the first set of laboratory instruments.

305.   (New): The method of Claim 302, further comprising:

storing a portion of said image information on a label associated with a sample.

306.   (New): A computer program product for communicating data in a laboratory information management and control network comprising code that:

receives data at a server from a single input point, said data including a first portion comprising at least one of case information, patient information and test order information, said data being entered at said single input point;

stores said data in a first database managed by said server;

automatically replicates said data from said first database to one or more hosts in communication with said server, a first host of said hosts controlling at least one laboratory instrument, said data being replicated without further data entry and using messages exchanged between said server and said first host; and

stores said data in a second database which is local to said first host.

307. (New): The computer program product of Claim 306, wherein said single input point is a laboratory information management system managing patient and laboratory information.

308. (New): The computer program product of Claim 306, wherein said at least one laboratory instrument includes at least one of: an imager, a stainer, a bar code reader, a label printer, an optical scanner, an instrument that writes information to a label, and an instrument that reads information from a label.

309. (New): The computer program product of Claim 306, further comprising code that:

receives diagnostic information from a pathologist, wherein at least a portion of said information is received using at least one of: a computer entry station, a touch pad entry device, a voice data entry device, and an interactive video with voice data entry device.

310. (New): The computer program product of Claim 306, further comprising code that:

records pathologist diagnostic information on a label associated with a sample using a data recording device in communication with one of said hosts.

311. (New): The computer program product of Claim 306, further comprising code that:

exchanges communications between said server and said host to automatically maintain a synchronized copy of said data in said first database and said second database in accordance with any updates made to said data by said server, said host, or another component in communication therewith.

312. (New): The computer program product of Claim 308, wherein one of said instruments is an imager, said imager including a local memory or a data storage device upon which some of said data is stored.

313. (New): The computer program product of Claim 312, further comprising code that:

produces image information using said imager;

stores said image information in said one of said local memory or said data storage device;

uploads said image information to said second database of said host; and

automatically replicates said image information to said first database and another host by exchanging messages therebetween to maintain data synchronization of shared data elements, said image information being a shared data element.

314. (New): The computer program product of Claim 312, further comprising code that:

reports, by said imager, identifying information about a sample being processed at a point in time;

communicates said identifying information to said first host; and

automatically replicates said identifying information to said first data and another host by exchanging messages therebetween.

315. (New): The computer program product of Claim 306, wherein said first host controls a first set of one or more laboratory instruments operating in accordance with a first set of operations, and a second host is in communication with said first host and said server and controls a second set of one or more laboratory instruments operating in accordance with a second set of operations different than the first set of laboratory instruments.

316. (New): The computer program product of Claim 313, further comprising code that:

stores a portion of said image information on a label associated with a sample.

317.   (New):   A method for automatically scheduling a sample process of a
plurality of samples in a laboratory comprising:

receiving scheduling input information, said scheduling input information
including supply information; and

scheduling a sample process for said plurality of samples in accordance with
scheduling input information on at least one laboratory instrument.